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(54) Title: ADEPT OR GDEPT PRODUCING ACETALDEHYDE

(57) Abstract: The present invention includes compounds, comprising a portion capable of converting a substrate, for example ethanol, to acetaldehyde and a means of directing the compounds to selected cells, and their use in therapeutic compositions and methods. The compounds may be administered with the substrate, for example ethanol, and an inhibitor of aldehyde dehydrogenase. As an example, acetaldehyde may be produced locally in tumours as a result of the presence of the enzyme alcohol dehydrogenase within the tumour targeted there by either antibody delivery systems, liposomes or gene therapy delivery systems, or any other suitable system to allow the localisation of a suitable enzymatically active component at the tumour site. When the substrate is pyruvate (i.e. the portion capable of converting a substrate to acetaldehyde is a catalytically active portion of pyruvate decarboxylase), the substrate may preferably be endogenous, i.e. present naturally in the body, particularly in or in the vicinity of the target cells.

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